WHAT IS CLAIMED IS:

1. An optical switch for making part of incident light, which contains a specific polarized light component and has been made incident on an optical waveguide, selectively emergent from said optical waveguide to a light emergence portion provided outside said optical waveguide, said optical switch comprising:

a multi-layer structure composed of a plurality of light transmissive layer;

wherein letting σ be a refractive index control accuracy at the time of producing said multi-layer structure, a refractive index of at least one light transmissive layer in said multi-layer structure is different from a refractive index of a light transmissive layer other than said at least one light transmissive layer in said multi-layer structure by 3σ or more.

2. An optical switch according to claim 1, wherein said at least one light transmissive layer having a different refractive index is either of inner layers, excluding the uppermost layer and the lowermost layer, of said multi-layer structure.

3. An optical switch for making part of incident light, which contains a specific polarized light component and has been made incident on an optical

waveguide, selectively emergent from said optical waveguide to a light emergence portion provided outside said optical waveguide, said optical switch comprising:

a light transmissive stacked structure including a function layer for selective emergence of said incident light;

wherein letting Δn be a difference between a refractive index n_0 of said optical waveguide and a refractive index n_1 of an arbitrary layer forming part of said stacked structure, "d" be a thickness of said arbitrary layer, and λ be a wavelength of said incident light, the values of Δn, "d", and λ satisfy a condition of $2.20 \times 10^{-3} \leqq |\Delta n \cdot d \cdot \lambda^{-1}| \leqq 3.03 \times 10^{-3}$.

4. An optical switch according to claim 3, wherein said optical waveguide has a refractive index ranging from 1.57 to 1.60; and

said light transmissive stacked structure contains at least one layer disposed on said optical waveguide, said at least one layer having a refractive index ranging from 1.594 to 1.595 and a thickness ranging from 0.13 μm to 0.16 μm.

5. An optical switch according to claim 3, wherein said optical waveguide has a refractive index ranging from 1.57 to 1.60; and

said light transmissive stacked structure contains two layers disposed on said optical waveguide, said two layers each having a refractive index ranging from 1.594 to 1.595 and a thickness ranging from 0.13 μm to 0.16 μm.

6. An optical switch according to claim 3, wherein said light transmissive stacked structure contains a transparent resin layer.

7. An optical switch according to claim 6, wherein said transparent resin layer is made from a polyimide based resin.

8. An optical switch according to claim 3, wherein said light transmissive stacked structure contains a transparent electrode layer.

9. An optical switch according to claim 3, wherein said optical waveguide is made from a polycarbonate based resin.

10. An optical switch according to claim 3, wherein said function layer is composed of one kind or two or more kinds of layers selected from a group consisting of layers capable of, depending on a change in electric field or light, modulating a refractive index, a refractive index distribution, an emission intensity, a color density, a dielectric constant, and a permeability, and layers capable of, depending on a change in electric

field or light, changing a liquid crystal alignment state, and scattering light.

11. An optical switch according to claim 3, wherein said function layer is a ferroelectric liquid crystal, and is held between a pair of transparent resin layers.

12. An optical switch according to claim 3, wherein said incident light is light emitted from a semiconductor laser or a light emitting diode.

13. A display unit comprising:

a plurality of optical waveguides, disposed approximately in parallel to each other, for receiving light containing a specific polarized light component as incident light;

one or two or more light emergence portions crossing said optical waveguides; and

optical switches, disposed between said waveguides and said light emergence portions, for making part of said incident light selectively emergent from said optical waveguides to said light emergence portions provided outside said optical waveguides;

wherein each of said optical switches has a light transmissive stacked structure including a function layer for selective emergence of said incident light; and

letting Δn be a difference between a refractive index n_0 of said optical waveguide and a refractive index n_1 of an arbitrary layer forming part of said stacked structure, "d" be a thickness of said arbitrary layer, and λ be a wavelength of said incident light, the values of Δn, "d", and λ satisfy a condition of $2.20\times10^{-3} \leqq | \Delta n \cdot d \cdot \lambda^{-1} | \leqq 3.03\times10^{-3}$.

14. A display unit according to claim 13, wherein said light transmissive stacked structure contains a transparent resin layer.

15. A display unit according to claim 14, wherein said transparent resin layer is made from a polyimide based resin.

16. A display unit according to claim 13, wherein said light transmissive stacked structure contains a transparent electrode layer.

17. A display unit according to claim 13, wherein said optical waveguide is made from a polycarbonate based resin.

18. A display unit according to claim 13, wherein said function layer is composed of one kind or two or more kinds of layers selected from a group consisting of layers capable of, depending on a change in electric field or light, modulating a rerractive index, a

refractive index distribution, an emission intensity, a color density, a dielectric constant, and a permeability, and layers capable of, depending on a change in electric field or light, changing a liquid crystal alignment state, and scattering light.

19. A display unit according to claim 13, wherein said function layer is a ferroelectric liquid crystal, which is held between a pair of transparent resin layers.

20. A display unit according to claim 13, wherein said incident light is light emitted from a semiconductor laser or a light emitting diode.

21. A display unit according to claim 13, wherein light emitting devices functioning as red light sources, blue light sources, and green light sources are sequentially arrayed so as to be aligned with said optical waveguides; and

each of said light emitting devices is controlled to emit light in response to a specific signal, and the light emitted from said light emitting device is made incident on the corresponding one of said optical waveguides as said incident light.

22. A display unit comprising:

optical switches adjacent to each other;

wherein each of said optical switches, which is

different from that adjacent thereto in terms of at least one of a thickness and a refractive index of a layer forming said optical switch, is provided so as to correspond to a wavelength of light emitted from each light emitting device.

23. An optical switch for making part of incident light, which contains a specific polarized light component and has been made incident on an optical waveguide, selectively emergent from said optical waveguide to a light emergence portion provided outside said optical waveguide, said optical switch comprising:

a light transmissive stacked structure including a function layer for selective emergence of said incident light;

wherein letting L μm be a length of said function layer in the longitudinal direction of said optical waveguide, a thickness of said optical waveguide is in a range of $0.05 \cdot L$ μm to $0.2 \cdot L$ μm.

24. An optical switch according to claim 23, wherein the length L μm of said function layer is 1,000 $\pm$ 300 μm.

25. A display unit comprising:

a plurality of optical waveguides, disposed approximately in parallel to each other, for receiving

light containing a specific polarized light component as incident light;

one or two or more light emergence portions crossing said optical waveguides; and

optical switches, disposed between said waveguides and said light emergence portions, for making part of said incident light selectively emergent from said optical waveguides to said light emergence portions provided outside said optical waveguides;

wherein each of said optical switches has a light transmissive stacked structure including a function layer for selective emergence of said incident light; and

letting L μm be a length of said function layer in the longitudinal direction of said optical waveguide, a thickness of said optical waveguide is in a range of $0.05 \cdot L$ μm to $0.2 \cdot L$ μm.

26. A display unit according to claim 25, wherein the length L μm of said function layer is 1,000 $\pm$ 300 μm.

27. An optical switch for making part of incident light, which contains a specific polarized light component and has been made incident on an optical waveguide, selectively emergent from said optical waveguide to a light emergence portion provided outside said optical waveguide, said optical switch comprising:

a light transmissive stacked structure including a function layer for selective emergence of said incident light;

wherein letting Δn be a difference between a refractive index n_o of said optical waveguide and a refractive index n_1 of an arbitrary layer forming part of said stacked structure, "d" be a thickness of said arbitrary layer, and λ be a wavelength of said incident light, the values of Δn, "d", and λ satisfy a condition of $|\Delta n \cdot d \cdot \lambda^{-1}| \leqq 3.03 \times 10^{-3}$ and $|\Delta n \cdot d \cdot \lambda^{-1}| \neq 0$.